P. TYPHOON VIOLET (040000Z-101800Z OCTOBER 1961)

While Typhoon TILDA was moving toward Okinawa, a small circulation began to appear SW of Marcus Island, and by O21800Z it was well enough defined to merit a request for an investigation. Based on a reported surface wind of 45 kts, the first Tropical Storm VIOLET warning was issued at O40000Z.

AT THIS TIME A RIDGE WITH A N-S ORIENTATION WAS LOCATED W OF VIOLET, MIDWAY BETWEEN THE TWO TYPHOONS, VIOLET AND TILDA. AT FIRST VIOLET WAS UNABLE TO TRAVERSE THIS RIDGE WHICH EXTENDED FROM THE SUR-FACE THROUGH 500 MB. INSTEAD SHE MOVED TOWARD THE SW AND INTENSIFIED. REACHING TYPHOON STRENGTH AT APPROXIMATELY 041200Z. DURING HER IN-TENSIFICATION PROCESS VIOLET ALSO EXTENDED VERTICALLY, BECOMING DEFINITELY CLOSED AT THE 300 MB LEVEL AT 051200Z. AT THE SAME TIME, A SMALL OUTDRAFT APPEARED ON THE 200 MB MAP IMMEDIATELY SE OF VIOLET AND RESULTED IN THE FORMATION OF A NEUTRAL POINT AT THE SAME LEVEL DIRECTLY OVER THE TYPHOON'S CENTER. VIOLET THEN DECELERATED SLIGHTLY AND STARTED AN ABRUPT TURN TOWARD THE NW AS THE SUBTROPICAL RIDGE SHIFTED TO THE E. VIOLET CONTINUED TO INTENSIFY, REACHING HER MAXI-MUM STRENGTH OF 180 KTS FROM 070000Z TO 071200Z. SHE THEN STARTED TO WEAKEN SLIGHTLY AND CONTINUED TO THE NNW, RECURVING THROUGH THE RIDGE LINE AT ABOUT 28N. SHE CONTINUED TO FOLLOW A SMOOTH PARABOLIC TRACK. AND CROSSED THE BOSO PENINSULA 30 MI E OF TOKYO AT ABOUT 092200Z. SHE WAS MOVING AT A SPEED OF 27 KTS AT THIS TIME AND STILL HAD MAXI-MUM SUSTAINED SURFACE WINDS OF 70 KTS. AFTER HER BRUSH WITH LAND, VIOLET RAPIDLY COMMENCED TO ASSUME EXTRATROPICAL CHARACTERISTICS. THE FINAL WARNING WAS ISSUED AT 101800Z WHEN SHE HAD WEAKENED TO 40 KTS.

VIOLET WAS UNUSUAL IN THAT SHE MOVED STEADILY TOWARD THE SW FOR AT LEAST ONE AND ONE HALF DAYS, BUT OTHER THAN THAT, SHE WAS QUITE NORMAL. SHE TRAVELED 2050 MI IN THE 6 DAYS AND 18 HOURS THAT WARNINGS WERE BEING ISSUED. HER MINIMUM SPEED WAS 4 KTS WHEN SHE MADE THE TURN FROM A HEADING OF SW TO THE NW AND HER MAXIMUM SPEED OF 31 KTS OCCURRED AFTER SHE PASSED TOKYO.

AS VIOLET APPROACHED GUAM FROM THE NE, LITTLE DAMAGE OCCURRED EXCEPT FOR SLIGHT CROP DAMAGE AND SOME NERVOUSNESS AMONG THE OCCUPANTS OF THE ISLAND. AFTER IT COMMENCED MOVING TO THE NW A MERCHANT VESSEL, THE PIONEER MUSE, WAS GROUNDED ON KITA DAITO SHIMA, ONLY A FEW MILES FROM THE SHEIK, AND BROKE IN TWO THE FOLLOWING DAY DUE TO HEAVY SEAS. THE CREW OF THE PIONEER MUSE WAS RESCUED BY THE AMPHIBIOUS ASSAULT SHIP PRINCETON VIA HELICOPTER. ONLY MINOR DAMAGE OCCURRED TO JAPAN IN THE TOKYO AREA, DUE TO GUSTY WINDS. TWO DEATHS WERE ATTRIBUTED TO THE TYPHOON IN JAPAN.

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LAND RADAR AND AIRCRAFT FIXES - TYPHOON VIOLET

| FIX | | | | UNIT Method | MAX SFC | MAX 700MB | MIN 700MB | MIN Slp | 700MB | |
|-----|---------|--------|--------|----------------|------------|--------------|--------------|------------|-------|-----------------------------------|
| NO. | TIME | LAT. | LONG. | & ACCY | WND | WND | HGT | MBS | (°c) | EYE CHARACTERISTICS |
| 1 | 032130Z | 19.5N | 147.2E | VW1-P-10 | 45 | | | 997 | | POORLY DEFINED |
| 2 | 040845Z | 18.6N | 146.1E | VW1-P-10 | 45 | | | | | DEFINED BY SPIRAL BANDS |
| 3 | 042100Z | 17.3N | 145.1E | 56-P-01 | 85 | 70 | 9860 | 975 | 15/08 | CIRC DIA 25MI WALL CLDS ALL QUADS |
| 4 | 050200Z | 16.9N | 144.9E | 56-P-03 | 110 | 70 | 9740 | 972 | 16/11 | DIA 29MI |
| 5 | 050700Z | 16.7N | 144.5E | 56-P-03 | 110 | 62 | 9560 | 970 | 16/11 | CIRC DIA 20 MI |
| 6 | 051245Z | 16.2N | 143.9E | VW1-R-03 | | | | | | DIA 15MI |
| 7 | 060300Z | 16.7N | 143.4E | 56-P-03 | 65 | 65 | 9000 | 946 | 15/10 | CIRC 16MI DIA |
| 8 | 060630Z | 17.2N | 143.2E | 56-P-02 | 100 | 7 5 | 8670 | 946 | 17/12 | DIA 5 MI |
| 9 | 061330Z | 18.2N | 142.6E | VW1-R-05 | | | | | | DIA 11 MI |
| 10 | 062130Z | 19.1N | 141.8E | 56-P-02 | 190 | 170 | 7340 | 898 | 25/19 | WALL CLDS ALL QUADS |
| 11 | 070200Z | 19.6N | 141.2E | 56-P-02 | 190 | 160 | 7260 | 894 | 27/21 | CIRC 5MI DIA WELL DEFINED |
| 12 | 070700Z | 20.2N | 140.8E | 56-P-02 | 190 | 160 | 7130 | 882 | 29/23 | RADAR EYE DIA 10MI |
| 13 | 071358Z | 21.5N | 139.4E | VW1-R-10 | | | | | | CIRC DIA 9 MI |
| 14 | 0722002 | 22.5N | 138.9E | 56-P-05 | 125 | 115 | 7350 | 908 | 21/15 | CIRC DIA 9 MI |
| 15 | 080400Z | 23.4N | 138.3E | 56-P-02 | 125 | 110 | 7580 | 916 | 17/15 | WELL DEFINED CIRC DIA 12 MI |
| 16 | 081330Z | 25.9N | 137.1E | VW1-R-05 | | | | | | CIRC DIA 10 MI |
| 17 | 081515Z | 26.2N | 136.9E | VW1-R-05 | | | | | | CIRC DIA 8 MI |
| 18 | 082145Z | 27.2N | 136.7E | 56-P-03 | 125 | 115 | 8010 | 930 | 17/16 | CIRC DIA 10 MI |
| 19 | 090300Z | 28.5N | 136.8E | 56-P-02 | 130 | 90 | 8250 | 940 | 19/15 | CIRC DIA 10 MI OPEN S & W |
| 20 | 091150Z | ·31.2N | 137.9E | VW1-R-10 | | | | | | INDEFINITE 28 MI DIA |
| 21 | 091500Z | 32.7N | 138.3E | VW1-R-10 | | | | *** | | CIRC 20 MI DIA |

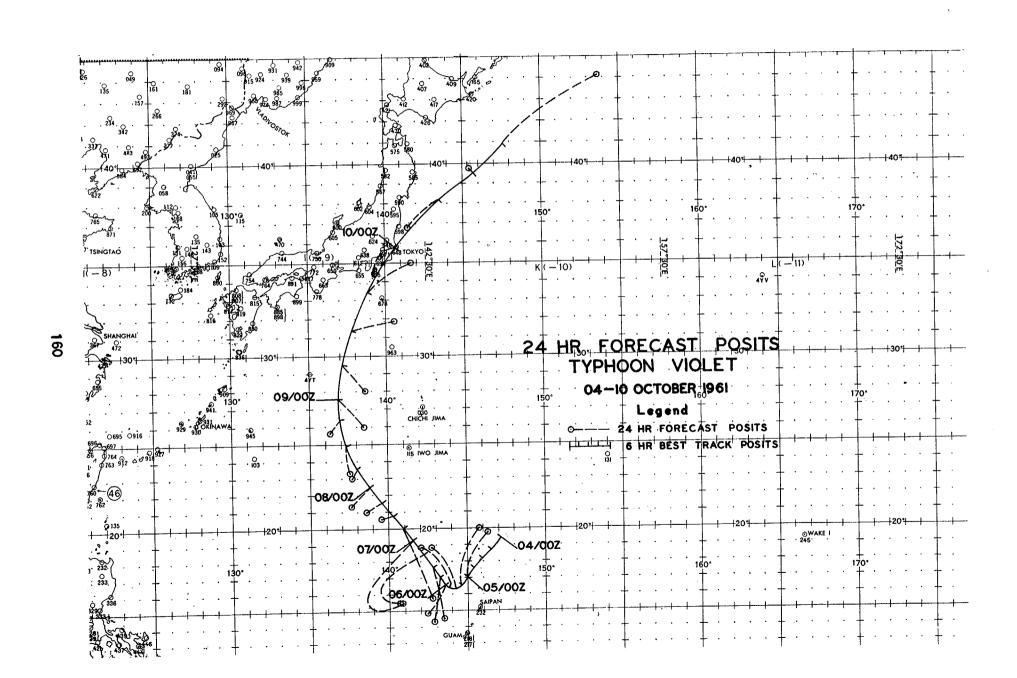
LAND RADAR AND AIRCRAFT FIXES - TYPHOON VIOLET (CONT'D)

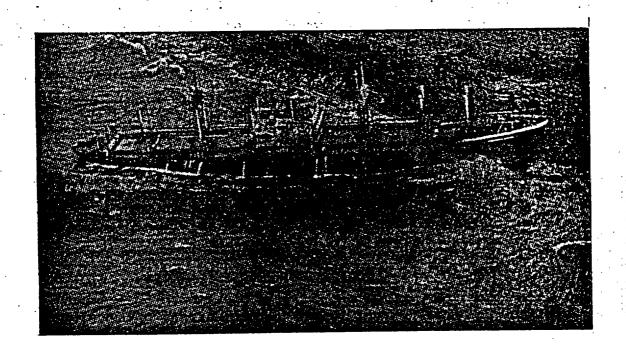
| FIX NO. | TIME | LAT. | LONG. | UNIT METHOD & ACCY | MAX SFC WND | MAX 700MB WND | MIN 700MB HGT | MIN SLP MBS | 700MB T/Tp (°C) | EYE CHARACTERISTICS |
|------------|---------|-------|--------|--------------------------|-------------------|---------------------|---------------------|-------------------|-----------------------|---------------------|
| 22 | 092130Z | 34.3N | 139.5E | 56-P-01 | 80 | 40 | 9380 | 973 | 18/08 | NO WALL CLDS |
| 23 | 100700Z | 39.0N | 142.3E | 56-P-02 | 100 | 80 | 9850 | | 16/12 | POORLY DEFINED |

TYPHOON VIOLET 04-10 OCT 1961 POSITION AND FORECAST VERIFICATION DATA

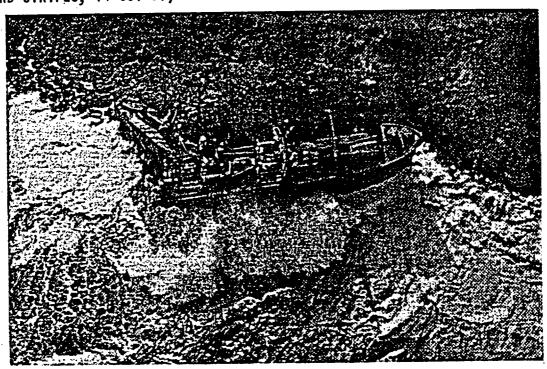
| | STORM PO | SITION | 24 HR. ERROR | 48 HR. ERROR |
|-----------------|----------|----------|------------------------------|---------------|
| DTG | LAT. | LONG. | DEG. DISTANCE | DEG. DISTANCE |
| 040000Z | 19.4N | 147.0E | 40 W w w in in m | |
| 040600Z | 18.8N | 146.4E | 100 MM 400 000 000 000 000 | |
| 041200Z | 18.3N | 145.8E | | |
| 041800Z | 17.6N | 145.4E | 400 444 Apr ago 404 Alle day | |
| | | | | |
| 050000Z | 17.1N | 144.9E | 025-175 | |
| 050600Z | 16.6N | 144.7E | 019-204 | |
| 051200Z | 16.3N | 144.1E | 333-172 | |
| 051800Z | 16.3N | 143.7E | 329-180 | |
| | | | | |
| 060000Z | 16.5N | 143.5E | 210-117 | 015-235 |
| 060600Z | 17.1N | 143.2E | 187-170 | 359-210 |
| 061200Z | 17.8N | 142.8E | 172-195 | 302-145 |
| 061800Z | 18.6N | 142.2E | 207-207 | 294-186 |
| | | | 400 000 | |
| 070000Z | 19.4N | 141.4E | 1.90-235 | 205-315 |
| 070600Z | 20.1N | 140.9E | 157-275 | 185-365 |
| 0 71200Z | 20.9N | 140.1E | 227-35 | 171-415 |
| 071800Z | 21.8N | 139.4E | 218-65 | 198-375 |
| | | | | |
| 080000Z | 22.7N | 138.7E | 210-112 | 194-442 |
| 080600Z | 23.8N | 137.9E | 197–55 | 171-510 |
| 081200Z | 25.0N | . 137.4E | 172-110 | 150-220 |
| 081800Z | 26.4N | 136.8E | 223-55 | 205-290 |
| | | | 440 440 | 000 000 |
| 090000Z | 27.8N | 136.7E | 142-142 | 200-325 |
| 090600Z | 29.6N | 137.1E | 136-120 | 190-180 |
| 091200Z | 31.5N | 137.8E | 078-137 | 192-325 |
| 091800Z | 33.6N | 138.9E | 057-160 | 194-255 |
| 4000007 | OE 0" | 140.05 | 210 112 | 170 005 |
| 100000Z | 35.8N | 140.8E | 219-112 | 173-335 |
| 100600Z | 38.2N | 143.3E | 049-120 | 169-340 |
| 101200Z | 39.7N | 145.8E | 290-22 | 050-330 |
| 101800Z | 41.ON | 147.3E | 057-335 | 060-435 |
| | | | | |

AVERAGE 24 HOUR ERROR 146 MI AVERAGE 48 HOUR ERROR 312 MI





SHIPPING DAMAGE: THE PIONEER MUSE RAN AGROUND OF KITA DIATO SHIMA AS A RESULT OF TYPHOON VIOLET, OCTOBER, 1961. (RELEASED BY PACIFIC STARS AND STRIPES, 14 OCT 61)



SHEIK IS BROKEN IN TWO AFTER RUNNING AGROUND ON KITA DIATO SHIMA, OCTOBER 1961. (RELEASED BY PACIFIC STARS AND STRIPES, 14 OCT 61)